



Project 1: Standardized Test Analysis

SAT Participation vs. Higher Education

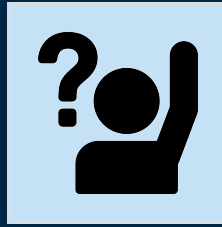
Alyssia Oh

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Background

- Traditionally, SAT and ACT scores have been required by colleges for admissions
- The effectiveness of standardized tests to measure students' aptitude remains controversial
- More colleges are opting to drop standardized tests as requirements for application
- Despite this recent trend, more states are mandating juniors/seniors to take the test, which in turn may encourage students to attend college and pursue higher education

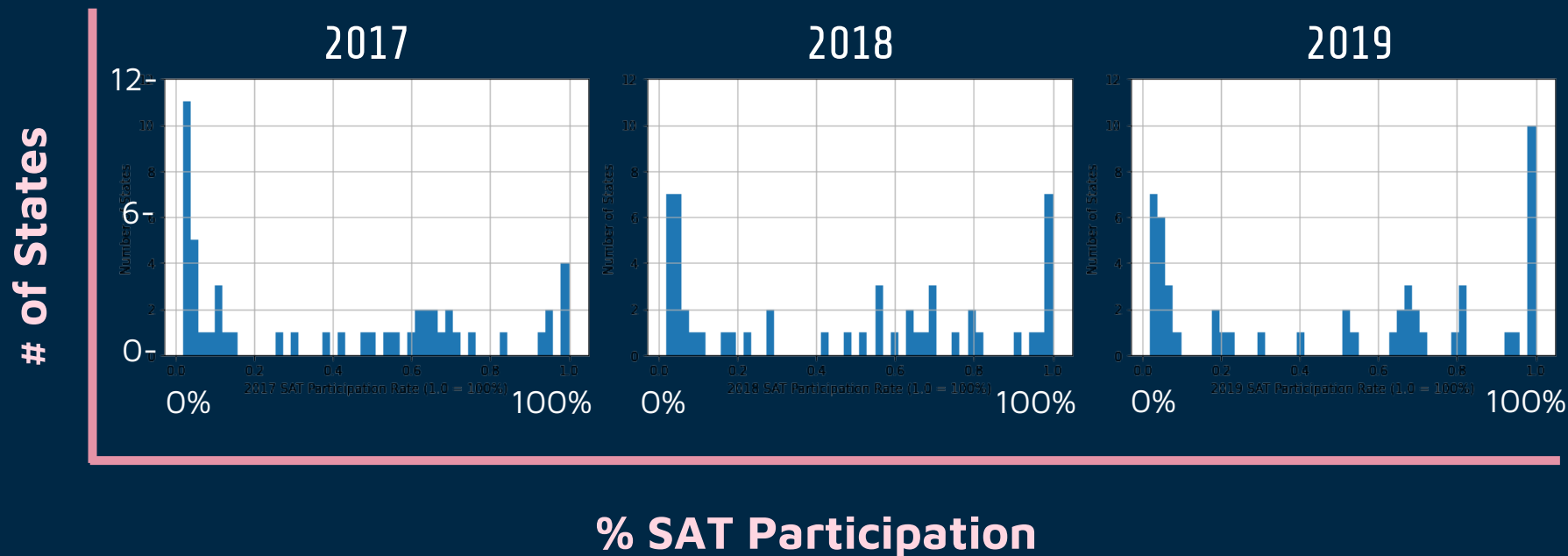
Problem Statement

Does participating in standardized tests such as SAT improve education attainment in America?

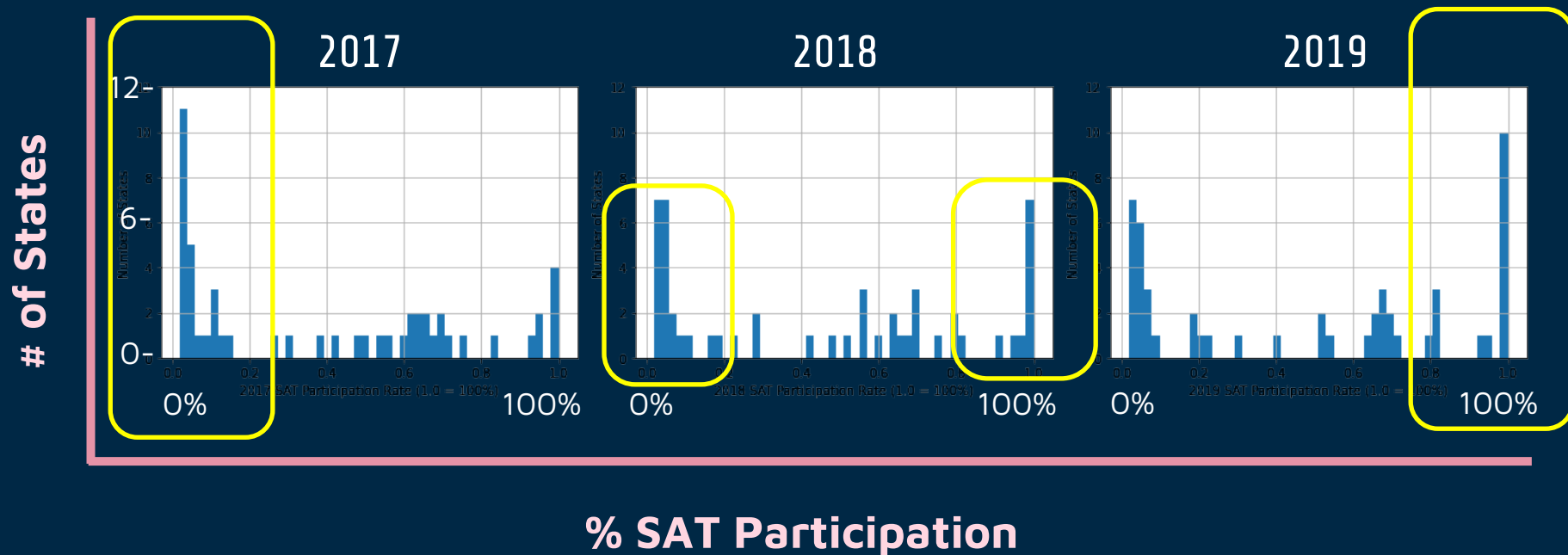
Data sets used for analysis:

- SAT_2017.csv
- SAT_2018.csv
- SAT_2019.csv
- Education attainment(HS/Bachelor's/Advanced) by US States_2013--2017.csv

Exploratory Data Analysis

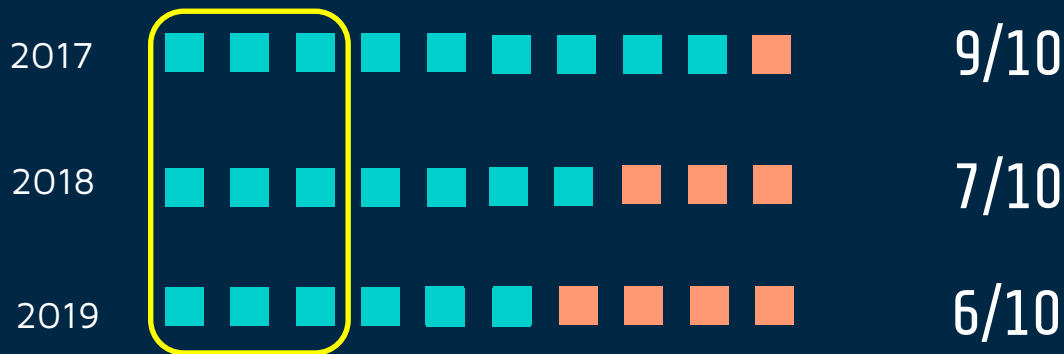


Exploratory Data Analysis



Analysis

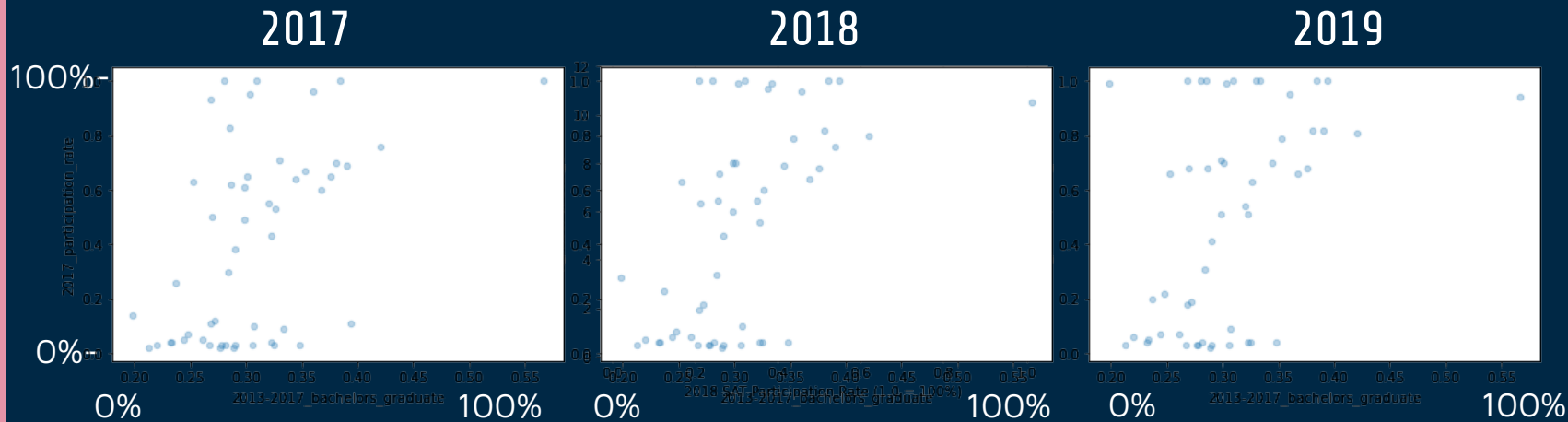
Top 10 States with Highest Percentage of College Degree in 2013–2017
Above 75th Percentile SAT Participation



3/10 in all three years

Analysis

% SAT Participation



% college graduate

Conclusion/Caveat

- Weak correlation observed; however, correlation \neq causation
- Dataset is limited – more states started adopting SAT as standardized assessment test after its format change in 2016
- Return per \$ investment had not been optimized
- If more colleges abandon SAT, the incentive for students diminishes